PHASE 2 REVIEW: San Francisco Area Network

Documents(s) reviewed: All that were provided.

i. Regional requirements: Were the following formatting guidelines used?
    Page numbers
    Header or footer with the document name, main author, date
    Line numbers

Section I. Report Format, Logical Organization, Writing

1.   Does the Format and Outline correspond to the guidance in "Outline for Vital Signs Monitoring Plan"?
- Are the chapter headings the same as identified on pages 2-5? Is there an Executive Summary or is one planned?

- Organization of Content (Document): Are there Tables of Contents (TOC) for the document, figures, and tables? Are the section headings the same as in the TOC? How well do they describe the content of the section?

- Length and Appendices: Is this portion of the monitoring plan concise enough that it will be reasonable for the completed main document to be around 100 pages in length (including later chapters of the monitoring plan)? If more detailed sections of the plan are available in Appendices, on the web, or in some other document, is it clear how they relate to the main document? Is there a consistent format and organization for the Appendices? Do you have any suggestions for improving the format and organization of the Appendices?

2.   Organization of Information. Please comment on the organizational structure and flow of information. Is the current organization logical? How could it be improved?

- Synthesis, Organization and Presentation of Information: Do the authors make good use of tables, figures, captions, and other methods of organizing information concisely? Please comment on the usefulness and relevancy of figures and tables.

3.   Clarity, Style, and Content: Is the document clearly written and the style appropriate for a technical document that will be read by experts interested in the ecological and statistical design of the monitoring plan, and by an educated audience that may not be as knowledgeable about these topics, but is concerned about their management implications? Is the document well-

written with good attention to specifics and few typographical errors? Are acronyms over-used?
Are they defined? Please comment on other items related to writing style that were noted in the
document.

4.   Other Comments.

I found the material well done with no major typographical or grammatical errors. I was able to
understand it without difficulty. My only comment in this regard is trivial. The CBE Style
manual notes that the phrase, "In order to" should always be shortened to just "To."   You could
save a few words by a search on this phrase.

Another comment is that the proper citation for the California Department of Forestry and Fire
Protection 1988 paper is Mayer and Laudenslayer 1988. That is the way it is known in the
wildlife community. On this note, I recommend you might highlight the entire California
Wildlife Habitat Relationships (CWHR) System a bit more directly. NPS staff was involved
with the development of this product. Although California Fish and Game now maintains the
System, all federal and state agencies in California were instrumental in its development with the
understanding that it would be a standard used by all agencies with wildlife concerns. It is in
effect a set of a priori hypotheses that can be tested by monitoring efforts via an adaptive
management approach. One of its products is a document I produced that suggests standard
monitoring techniques for each terrestrial vertebrate in California.

In general, the material is well supported with current citations throughout. However, there are
some paragraphs that make sweeping statements with no supporting citations. I recommend that
each paragraph with substantial content be referenced to at least a general text on the subject. I
see no reason why this document should not be supported by citations to the same degree as
expected in a term paper.

Section II. Chapter 1 - Introduction and Background

1.   How well have the authors answered the question, "Who is interested in monitoring
information and why?"

   •   How well is the purpose of the monitoring program explained?

   •   Does the summary of NPS policy, guidance, and other federal legislation preceding the
       formalization of the NPS Inventory and Monitoring Program convey the importance and
       force of legislative mandate regarding the need to monitor NPS natural resources? Does
       it appear comprehensive and complete?

   •   Are both Servicewide and network-specific goals for monitoring identified and
       differentiated? Are they clearly stated? How well will they serve to guide the network in
       developing a high-quality, long-term monitoring program?

- Are the relevant Servicewide and park-specific strategic goals for performance management (GPRA) stated, in addition to any statements from park enabling legislation that establish the need to monitor natural resources?

2. <u>Ecological Context:</u> Is an overview of important natural resources in each park discussed? Is the summary presented in a way that suggests the integration of the parks into a network? (Greater detail could be present in an appendix. The information presented here would be a synthesis of the expanded information available in the appendix.) How well does the overview represent the expanded material in the appendices?

- How well are the important ecological and management issues in each park described, including T&E, sensitive, and special status species?

- How well has the importance of the park's natural resources been discussed in a regional or national context?

- <u>Water quality</u>: Are parks identified that have waters where constituents exceed water quality standards and are listed on state Clean Water Act 303d lists or where water bodies are in danger of becoming degraded? Are parks with waters designated as Outstanding National Resource Waters or with other special protective designations identified? Are water quality monitoring parameters and management thresholds discussed here or in another section? Please comment on the organization and content of this section. Is anything missing?

- Is there an overview of the current and past natural resource monitoring being done in each park? Any widely-accepted monitoring efforts used on adjacent lands by other agencies or any current cooperative monitoring efforts should also be described. Is the description detailed enough to tell the significance of other monitoring activities to NPS efforts?

3. Was the overall process that was used to determine monitoring goals and objectives and to initially select Vital Signs for monitoring park resources clearly described? If so, does this process appear to be unbiased and reasonable, and to have resulted in a representative list of important ecological indicators for the network parks?

- Are the workshop reports included and is the workshop process clearly described?

4. Other comments for Chapter 1:

I have no criticisms on this material. I think the people involved did a fine job. I suspect, as usual, the devil will be in the details of working out the actual sampling protocols for those items chosen to move ahead on. As long as the NPS remains somewhat flexible in the future as new priorities arise, the details will be worked out in the process.

Section III. Chapter 2 – Conceptual Models

1.   In this section, networks are supposed to provide a tabular, graphical, and/or narrative summary describing the important components of network and park ecosystems such as ecosystem drivers, stressors, structures, processes, and indicators of change and the interactions among them. Please comment on how well these goals were achieved. Are the conceptual models developed logical and relevant, and are the relationships explained clearly? Does the model enhance understanding of the important factors influencing the structure and function of the ecosystem? How are different scales and spatial dynamics addressed? What other comments do you have? What did the network do "right"?

2.   How well are the basic purposes and types of conceptual models defined? Does the author provide an explanation for selecting this particular approach to model development? (Some other types of conceptual models could include process models, structural models, population models, models built around focal or keystone species, etc. in addition to the stressor-based models.)

3.   Are monitoring questions or vital signs for the network and network parks identified? Is their relationship to the conceptual model clear?

- Are terms and concepts clearly defined?

3.   Other comments for Chapter 2:

Section IV. Chapter 3 – Vital Signs

1.   How well is the need for prioritization of vital signs discussed? For the network? For parks? Is the relationship between park and network vital signs described?

2.   Are vital signs selected for monitoring listed together with the justification for why they were selected, and a description of how they fit into the conceptual model? Does the line of reasoning make sense?

3.   Are the criteria used to determine which components would be included in the monitoring program identified and adequately explained for all relevant portions of the process? Is it clear how tie scores were resolved?

4.   How well is the process used to prioritize and select vital signs described? Are results of the scoping and prioritization workshops and other efforts to identify the most important issues and data needs for parks in the network described?

5.   Realizing that most networks are not yet in the protocol development phase, has the network prepared for the next phase of protocol development by suggesting specific measurable attributes that it is considering evaluating for monitoring of each vital sign. Is there an adequate discussion of this topic?

6.	For water quality monitoring, have pollutants that exceed water quality standards been identified along with their threshold contamination values? Have other water quality indicators been identified and quantitatively discussed?

7.	Other comments for Chapter 3:

Section V. Synthesis Comments

1.	Does the monitoring plan to-date provide a sound foundation for a scientifically credible monitoring program that will ultimately meet the most important information needs of the parks in the network? Why or why not?

2.	Please list the areas of the monitoring plan that, in your opinion, are in the greatest need of additional work before the network moves into the next phase of sampling and protocol development?

3.	Additional Comments.

I have no problems with the effort to date. I think the process of determing priorities is essentially a political process, and will continue to be so. Much of what will be possible will depend on partnerships and volunteer interest. Those who are interested in a particular subject should be expected and urged to come "put their money where their mouth is" so the work can move forward. If NPS can provide the framework and oversight function to encourage partnerships and volunteers it can work. Congratulations on a great start to a long and difficult process.